



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/844,271	04/30/2001	Radhika Thekkath	MTEC007/00US	1047

22903 7590 11/14/2003

COOLEY GODWARD LLP
ATTN: PATENT GROUP
11951 FREEDOM DRIVE, SUITE 1700
ONE FREEDOM SQUARE- RESTON TOWN CENTER
RESTON, VA 20190-5061

EXAMINER

GROSS, KENNETH A

ART UNIT	PAPER NUMBER
----------	--------------

2122

DATE MAILED: 11/14/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/844,271	Applicant(s) THEKKATH, RADHIKA	
	Examiner Kenneth A Gross	Art Unit 2122	

-- The MAILING DATE of this communication appears on the cover sheet with the corresponding address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>5</u> . | 6) <input type="checkbox"/> Other: |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 3, 10, and 17 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Specifically, Claim 3 recites a “trace record indication identifying said outputted trace record as containing user trace data”. Does this mean that the indication specifies whether or not a trace record contains user trace data? Yet, in Claim 1, the trace record is generated with user trace data, and hence the user trace data is always included in the trace record. So then, wouldn’t the indication always refer to the trace record as having data? Claim 10 corresponds with Claim 3. Claim 17 references Claim 15 as its parent Claim, and makes reference to program code transmission, which is not recited in Claim 15. Claim 17 is interpreted to depend on Claim 16 as its parent Claim.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

Art Unit: 2122

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claim 1, 2, 4, 6-9, 11, 13-15, and 18 are rejected under 35 U.S.C. 102(e) as being anticipated by Ayers et al. (U.S. Patent Number 6,353,924).

In regard to Claim 1, Ayers teaches: (a) executing a program that includes a plurality of instructions including one or more user trace data commands (Column 11, lines 35-45) where the command instructs a processor to write user trace data to a user trace data register (Column 11, lines 53-55 and Column 12, lines 1-6); (b) detecting a write to at least part of said user trace data register and (c) in response to said detected write, generating a trace record that includes part of the user trace data in said user trace data register (Column 8, lines 8-12).

In regard to Claim 2, Ayers teaches a trace capture component (Figure 4, item 319 and corresponding text).

In regard to Claim 4, Ayers teaches that the trace data register contains identifier values of program blocks. Since this register contains a value, this register holds a general processor register value (Column 8, lines 8-12).

In regard to Claim 6, Ayers teaches saving bits which indicate the direction that branches take during execution, which is useful for debugging (Column 4, lines 5-16).

In regard to Claim 7, Ayers teaches that a trace data command is included in the program prior to execution (Figure 4, item 313 and 315, and associated text).

In regard to Claim 8, Claim 8 is a system Claim that corresponds with Claim 1. Claim 8 is rejected for the same reasons as Claim 1, where Ayers further teaches a system for carrying out the method of Claim 1 (Column 13, lines 49-67).

Claims 9, 11, 13, and 14 correspond directly with Claims 2, 4, 6, and 7, and are rejected for the same reasons as Claims 2, 4, 6, and 7, respectively.

In regard to Claim 15, Claim 15 is a product Claim that corresponds with Claim 1. Claim 15 is rejected for the same reasons as Claim 1, where Ayers further teaches a product for carrying out the method of Claim 1 (Column 13, lines 49-67).

In regard to Claim 18, Claim 18 is a computer data signal Claim that corresponds with Claim 1. Claim 18 is rejected for the same reasons as Claim 1, where a computer data signal is an inherent representation of data stored on any electrical device, such as a computer memory, taught by Ayers (Column 13, lines 49-67).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 3 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers et al. (U.S. Patent Number 6,353,924) in view of Baird et al. (U.S. Patent Number 5,848,264).

In regard to Claim 3, Ayers teaches the method of Claim 2, but does not teach outputting a trace record indication, said trace record indication identifying said outputted trace record as containing user trace data. Baird, however, does teach outputting a timestamp identifier which identifies the trace record being generated, and that the record has been generated at a given time with trace data contained within the record. Therefore, it would have been obvious to one of

Art Unit: 2122

ordinary skill in the art at the time of the invention to perform the method of Claim 2, where said trace record indication identifying said outputted trace record as containing user trace data, as taught by Baird, since this allows a user to be notified when a trace record can be viewed. Claim 10 corresponds directly with Claim 3 and is rejected for the same reasons as Claim 3.

7. Claims 5 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers et al. (U.S. Patent Number 6,353,924) in view of "How Debuggers Work: Algorithms, Data Structures, and Architecture" by Jonathan B. Rosenberg, 1996, pages 136-143 (hereinafter Rosenberg).

In regard to Claim 5, Ayers teaches the method of Claim 1, but does not teach that the user trace data register includes a program variable value. Rosenberg, however, teaches the concept of the program stack, which holds variable values in registers for the purposes of tracing (Page 138, lines 6-7 and Page 139, lines 1-3). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to perform the method of Claim 1, where the user trace data register includes a program variable value, since program variable values are most useful to programmers in deciphering the functionality of their program. Claim 12 corresponds directly with Claim 5 and is rejected for the same reasons as Claim 5.

8. Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ayers et al. (U.S. Patent Number 6,353,924).

In regard to Claim 16, Ayers teaches the function carried out by the computer-readable program code as taught in Claim 1 by Ayers. Although Ayers does not teach transmitting the computer-readable program code to a computer, it would be obvious to do so, since, in order to execute the code, it needs to be transferred into the memory of a computer.

Art Unit: 2122

In regard to Claim 17, the examiner takes official notice that the code is transferred over the Internet, since the Internet is a well-known medium for exchanging data between computer systems in different physical locations.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth A Gross whose telephone number is (703) 305-0542.

The examiner can normally be reached on Mon-Fri 7:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q Dam can be reached on (703) 305-4552. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

KAG



**TUAN DAM
SUPERVISORY PATENT EXAMINER**